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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,342	07/06/2000	Saburou Ikeda	NE-1018-US/KM	6453

21254 7590 10/06/2003

MCGINN & GIBB, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER	
KADING, JOSHUA A	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/611,342	Applicant(s) IKEDA, SABUROU	
	Examiner Joshua Kading	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-21 is/are rejected.

7)☒ Claim(s) 1,8,14,15,17,19 and 21 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract is greater than 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 1, 8, 14, 15, 17, 19, and 21 are objected to because of the following informalities:

4. Claim 1, line 8 states, "diverging ports and ones". It should read, "diverging ports and one".

5. Claim 8, lines 1-2 state, "demultiplexer multiplexer". It should read, "demultiplexer".

6. Claim 14, line 6 states, "does not coincides". It should read, "does not coincide".

7. Claim 15, lines 10 and 13 state, "diverging ports and ones" and "diverging ports and said ones" respectively. They should read, "diverging ports and one" and "diverging ports and said one".

8. Claim 17, line 11 states, "diverging ports and ones". It should read, "diverging ports and one".

9. Claim 19, lines 13 and 16 state, "diverging ports and ones" and "diverging ports and said ones" respectively. They should read, "diverging ports and one" and "diverging ports and said one".

10. Claim 21, lines 11 and 15 state, "system between ones" and "diverging ports and said ones" respectively. They should read, "system between one" and "diverging ports and said one".

11. Appropriate correction is required.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 7 and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the

invention. It is unclear how, in claims 7 and 8, from the drawings or the specification how applicant will send ATM packets over the Internet.

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. Claim 19 recites the limitation "a second plurality of diverging ports" in lines 8-9. It is unclear if this is the same set of second plurality of diverging ports as the previous set or if it is a new set.

17. Claim 19 also recites the limitation "said user terminals" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

19. Claims 1, 2, 12, 17, 18 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Srinivasan (U.S. Patent 6,145,002).

20. In regard to claim 1, Srinivasan discloses a connection apparatus for a public network switching system which serves user terminals, the apparatus comprising:

21. a switching unit having a plurality of diverging ports connected to the switching system and a plurality of converging ports adapted for connection to a plurality of internet lines (figure 1, element 20; col. 5, lines 41-43).

22. a control unit for receiving a request signal of one of said user terminals and establishing in said switching unit a set of branch connections between one of said diverging ports and one of said converging ports corresponding to the internet lines specified by said request signal, said one diverging port being connected through a connection to said one user terminal established in said switching system (figure 2, element 50; col. 6, lines 10-14).

23. In regard to claim 2, Srinivasan discloses a connection apparatus wherein said switching system is configured to serve a plurality of internet lines, and wherein said control unit is configured to request said switching system to establish a plurality of connections between said plurality of converging ports and said plurality of internet lines (figure 1, elements 20, 30, and 50 where the switch system serves a plurality of internet lines (elements 30) and col. 6, lines 10-14 imply the connections are set up by the control unit between the converging ports and internet lines).

24. In regard to claim 12, Srinivasan discloses a connection apparatus (see claim 1), wherein said control unit comprises a phone number memory for storing a plurality of phone numbers (col. 6, lines 32-36 where the subscriber registration database inherently stores the phone numbers of subscribers); and

25. a processor for determining whether a phone number contained in said request signal coincides with one of said phone numbers stored in said phone number memory and establishing said set of branch connections if the phone number coincides with one of the stored phone numbers (col. 6, lines 30-37).

26. In regard to claim 17, Srinivasan discloses a communication system comprising:

27. a public network switching system for establishing a connection between a first plurality of ports to which a plurality of user terminals are connected and a second plurality of ports in response to a request signal from one of said plurality of user terminals (figure 1; col. 3, line 35 where the telephone number is inherent in a public network switching system).

28. a switching unit having a plurality of diverging ports connected to said second plurality of ports of said switching system and a plurality of converging ports adapted for connection to a plurality of internet lines (figure1, element 20).

29. a control unit responsive to said request signal for establishing in said switching unit a set of branch connections between one of said diverging ports and one of said converging ports corresponding to the internet lines specified by said request signal,

said one diverging port being connected to said one user terminal through said connection established in said switching system (figure 1, element 50).

30. In regard to claim 18, Srinivasan discloses a communication system wherein said switching system is configured to serve a plurality of internet lines (figure 1, elements 30), and wherein said control unit is configured to request said switching system to establish a plurality of connections between said plurality of converging ports and said plurality of internet lines (see claim 2 above).

31. In regard to claim 21, Srinivasan discloses a method of communication for a public network switching system which serves user terminals by using a switching unit having a plurality of diverging ports connected to the switching system and a plurality of converging ports adapted for connection to a plurality of internet lines (see claim 1), the method comprising the steps of:

32. a) receiving a request signal of one of said user terminals (see claim 1);

33. b) establishing in said switching system a connection between said one user terminal and one of said plurality of diverging ports in response to said request signal (see claim 1);

34. c) establishing in said switching system a plurality of connections in said public network switching system between one of said plurality of converging ports and said plurality of internet lines according to phone numbers of internet service providers

contained in said request signal (col. 6, lines 30-36 where the Internet service is inherently providing by an Internet Service Provider);

35. d) establishing in said switching unit a set of branch connections between said one diverging port and said one of said converging ports (see claim 1); and

36. e) repeating the steps (a), (b), and (d) by skipping the step (c) if said plurality of connections are already established in said public network switching system (see claim1, it should also be noted that it is inherent in the communication system that once a connection is setup there is no need to set it up again unless the user has disconnected).

Claim Rejections - 35 USC § 103

37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

38. Claims 3-6, 9-11, 15, 16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan in view of Farris (U.S. Patent 5,541,917).

39. In regards to claim 3, Srinivasan discloses a connection apparatus as in claim 1. Srinivasan lacks a plurality of converging ports including a multiplexer for multiplexing a plurality of user signals into a signal transmission to one of said internet lines. However,

Farris discloses a plurality of converging ports including a multiplexer for multiplexing a plurality of user signals into a signal transmission to one of said internet lines (figure 6, element 701; col. 2, lines 31-32). It would have been obvious to one with ordinary skill in the art at the time of invention to include the multiplexer with the connection apparatus. The motivation being to efficiently transmit data.

40. In regard to claim 4, Srinivasan discloses a connection apparatus as in claim 1. Srinivasan lacks a plurality of converging ports that further includes a demultiplexer for demultiplexing a signal from said one internet line into a plurality of signals for application to said diverging ports (figure 6, element 701; col. 2, lines 31-32). It would have been obvious to one with ordinary skill in the art at the time of invention to include the demultiplexer with the connection apparatus. The motivation being to efficiently transmit data.

41. Claim 5 is rejected for the same reasons as in claim 3 even though claim 3 lacks a multiplexer that is configured to operate in a TCP/IP protocol mode. However, Srinivasan discloses a connection apparatus that operates in a TCP/IP protocol mode (figure 1, element 40 where it is inherent in Internet communications that a TCP/IP protocol is used). It would have been obvious to one with ordinary skill in the art to combine the TCP/IP protocol mode with the connection apparatus. The motivation being to have an effective means for connecting user terminals to the Internet.

42. Claim 6 is rejected for the same reasons as in claim 4 even though claim 4 lacks a demultiplexer that is configured to operate in a TCP/IP protocol mode. However, Srinivasan discloses a connection apparatus that operates in a TCP/IP protocol mode (figure 1, element 40 where it is inherent in Internet communications that a TCP/IP protocol is used). It would have been obvious to one with ordinary skill in the art to combine the TCP/IP protocol mode with the connection apparatus. The motivation being to have an effective means for connecting user terminals to the Internet.

43. Claim 9 is rejected for the same reasons as claim 3 even though claim 3 lacks a plurality of diverging ports that include a first line interface unit for interfacing the switching unit to said switching system and each of said converging ports further includes a second line interface unit for interfacing the multiplexer to said one internet line. However, Farris further discloses a plurality of diverging ports that include a first line interface unit for interfacing the switching unit to said switching system (figure 2, element 61 where it is taken that element 61 acts as the interface for the diverging ports) and each of said converging ports further includes a second line interface unit for interfacing the multiplexer to said one internet line (figure 2, elements 51 where it is taken that elements 61 act as the interface for the converging ports).

44. Claim 10 is rejected for the same reasons as claim 9 even though claim 9 lacks said second line interface unit that is in compliance with communication protocol and transmission speed of one of said user terminals. However, Srinivasan further discloses

the connection apparatus is in compliance with TCP/IP protocol (see claims 5 and 6 above), thus the second line interface must be in compliance with communication protocol and transmission speed of one of said user terminals.

45. Claim 11 is rejected for the same reasons as claim 9 even though claim 9 lacks said second line interface unit is configured to interface the demultiplexer to said one internet line. However, Farris further discloses a second line interface unit that is configured to interface the demultiplexer to said one internet line (see claims 4 and 9 above).

46. In regard to claim 15, Srinivasan discloses a connection apparatus for public network switching system which serves user terminals...a switching unit having a first plurality of diverging ports connected to the switching system (see claim 1)...and a plurality of converging ports adapted for connection to a plurality of internet lines (see claim 1); and a control unit for receiving a request signal of one of said user terminal and establishing in said switching unit a first set of branch connections between one of said first plurality of diverging ports and one of said converging ports corresponding to the internet lines specified by said request signal and a second set of branch connections between one of said plurality of diverging ports and said one of said converging ports, said one of the first plurality of diverging ports being connected through a connection established in said switching system...(see claim 1). Srinivasan lacks...terminals via a plurality of ADSL modems...a second plurality of diverging ports

connected to said ADSL modems...system to one of said ADSL modems associated with said one user terminal from which said request signal is received. However, Farris discloses terminals via a plurality of ADSL modems (figure 6, elements 701)...a second plurality of diverging ports connected to said ADSL modems (figure 6, the connections to elements 701)...system to one of said ADSL modems associated with said one user terminal from which said request signal is received (figure 6, element 700 where element 700 is a user terminal). It would have been obvious to one with ordinary skill in the art at the time of invention to include the ADSL modems with the connection apparatus. The motivation being to have an efficient means to connect user terminals to a network.

47. Claim 16 is rejected for the same reasons as claim 15 even though claim 15 lacks a connections apparatus wherein said switching system is configured to serve a plurality of internet lines, and wherein said control unit is configured to request said switching system to establish a plurality of connections between said plurality of converging ports and said plurality of internet lines. However, Srinivasan further discloses a connection apparatus wherein said switching system is configured to serve a plurality of internet lines, and wherein said control unit is configured to request said switching system to establish a plurality of connections between said plurality of converging ports and said plurality of internet lines (see claim 1).

48. In regard to claim 19 as understood at this time, Srinivasan discloses a communication system comprising:

49. a public network switching system for establishing a connection between a first plurality of ports...and a second plurality of ports in response to a request signal...(see claim 17 above).

50. a switching unit having a plurality of diverging ports connected to said second plurality of ports of said switching system, and a second plurality of diverging ports connected...and a plurality of converging ports adapted for connection to a plurality of internet lines (see claim 17 above).

51. a control unit for receiving a request signal of one of said user terminals and establishing in said switching unit a first set of branch connections between one of said first plurality of diverging ports and one of said converging ports corresponding to the internet lines specified by said request signal and a second set of branch connections between one of said second plurality of diverging ports and said one of said converging ports, said one of the first plurality of diverging ports being connected through a connection established in said switching system...with said one user terminal from which said request signal is received (see claim 15 above).

52. Srinivasan lacks a plurality of ADSL modems;...ports to which said ADSL modems are connected...signal from one of said ADSL modems...connected to said ADSL modems...system to one of said ADSL modems associated with... However, Farris discloses a plurality of ADSL modems;...ports to which said ADSL modems are connected...signal from one of said ADSL modems...connected to said ADSL

modems...system to one of said ADSL modems associated with...(see claim 15 above). It would have been obvious to one with ordinary skill in the art at the time of invention to include the ADSL modems with the communication system. The motivation being to have an efficient means to connect user terminals to a network.

53. Claim 20 is rejected for the same reasons as claim 19 even though claim 19 lacks a connections apparatus wherein said switching system is configured to serve a plurality of internet lines, and wherein said control unit is configured to request said switching system to establish a plurality of connections between said plurality of converging ports and said plurality of internet lines. However, Srinivasan further discloses a connections apparatus wherein said switching system is configured to serve a plurality of internet lines, and wherein said control unit is configured to request said switching system to establish a plurality of connections between said plurality of converging ports and said plurality of internet lines (see claim 18 above).

54. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan in view of Reber et al. (U.S. Patent 5,938,726).

55. In regard to claim 13, Srinivasan discloses a connection apparatus (see claim 1). Srinivasan lacks a control unit that further comprises an ID/password memory for storing a plurality of user identifiers and user passwords, and wherein said processor is configured to: determine whether a user identifier and a user password contained in

said request signal coincide with one of the user identifiers and one of the user passwords stored in said ID/password memory if the phone number contained in said request signal does not coincide with any of the stored phone numbers, and establish said set of branch connections if the user identifier and the user password contained in the request signal coincide with one of the stored user identifiers and one of the stored user passwords. However, Reber et al. further disclose the control unit further comprising an ID/password memory for storing a plurality of user identifiers and user passwords, and wherein said processor is configured to: determine whether a user identifier and a user password contained in said request signal coincide with one of the user identifiers and one of the user passwords stored in said ID/password memory if the phone number contained in said request signal does not coincide with any of the stored phone numbers, and establish said set of branch connections if the user identifier and the user password contained in the request signal coincide with one of the stored user identifiers and one of the stored user passwords (cols. 8 and 9, lines 65-67 (col. 8) and lines 1-8 (col. 9) where it is obvious that the memory must store user ID's and passwords in order to compare them for authentication). It would have been obvious to one with ordinary skill in the art at the time of invention to include the ID/Password system with the connection apparatus. The motivation being to only allow access to the network for authorized users.

56. Claim 14 is rejected for the same reasons as claim 13 even though claim 13 lacks a processor that is configured to determine whether the phone number contained

in said request signal coincides with a phone number which is denied access to the internet liens, and establish said set of branch connections if the phone number contained in said request signal does not coincide with said phone number which is denied access to the internet lines. However, Rebel et al. further discloses a processor that is configured to determine whether the phone number contained in said request signal coincides with a phone number which is denied access to the internet liens, and establish said set of branch connections if the phone number contained in said request signal does not coincide with said phone number which is denied access to the internet lines (cols. 8 and 9, lines 65-67 (col. 8) and lines 1-8 (col. 9) where it is obvious that the memory must store user ID's and passwords in order for the processor to compare them for authentication). It would have been obvious to one with ordinary skill in the art at the time of invention to include the ID/Password system with the connection apparatus. The motivation being to only allow access to the network for authorized users.

57. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

58. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

59. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Joshua Kading
Examiner
Art Unit 2661

JK
September 24, 2003

KENNETH VANDERPUYE
PRIMARY EXAMINER